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# PROJECT **CHECO** SOUTHEAST ASIA **REPORT**

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RICHARD DAVIS, AF/CHOR  
15 October 1985

## **SHORT ROUNDS**

### **CONTINUING REPORT**

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# PROJECT

Contemporary  
Historical  
Examination of  
Current  
Operations  
**REPORT**

## SHORT ROUNDS

15 JULY 1972

HQ PACAF

**Directorate of Operations Analysis  
CHECO/CORONA HARVEST DIVISION**

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Prepared by:

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Project CHECO 7th AF, DOAC

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OFFICE OF THE CHIEF OF STAFF

**PROJECT CHECO REPORTS**

The counterinsurgency and unconventional warfare environment of Southeast Asia has resulted in the employment of USAF airpower to meet a multitude of requirements. The varied applications of airpower have involved the full spectrum of USAF aerospace vehicles, support equipment, and manpower. As a result, there has been an accumulation of operational data and experiences that, as a priority, must be collected, documented, and analyzed as to current and future impact upon USAF policies, concepts, and doctrine.

Fortunately, the value of collecting and documenting our SEA experiences was recognized at an early date. In 1962, Hq USAF directed CINCPACAF to establish an activity that would be primarily responsive to Air Staff requirements and direction, and would provide timely and analytical studies of USAF combat operations in SEA.

Project CHECO, an acronym for Contemporary Historical Examination of Current Operations, was established to meet this Air Staff requirement. Managed by Hq PACAF, with elements at Hq 7AF and 7/13AF, Project CHECO provides a scholarly, "on-going" historical examination, documentation, and reporting on USAF policies, concepts, and doctrine in PACOM. This CHECO report is part of the overall documentation and examination which is being accomplished. It is an authentic source for an assessment of the effectiveness of USAF airpower in PACOM when used in proper context. The reader must view the study in relation to the events and circumstances at the time of its preparation--recognizing that it was prepared on a contemporary basis which restricted perspective and that the author's research was limited to records available within his local headquarters area.

*John M. McNabb*  
JOHN M. MCNABB, Major General, USAF  
Chief of Staff

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FOR THE COMMANDER IN CHIEF

*Robert E. Hiller*

ROBERT E. HILLER  
Director of Operations Analysis  
DCS/Operations

1 Attachment  
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15 July 1971

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PRIDE IN THE PAST



FAITH IN THE FUTURE

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FOREWORD

The term "short round," of artillery inception, described a shell which fell short of its target. In Air Force employment, this term is somewhat altered: "A short round incident is defined as the air delivery of ordnance which results in injury or death to friendly military forces or noncombatants."<sup>1/</sup> This CHECO report depicts those short rounds delivered by fixed-wing aircraft, specifically those under the operational control of the Seventh Air Force Tactical Air Control Center (TACC).

This report encompasses "short round" incidents reported from January through December 1971. It emphasizes a narrative of each incident with the factors leading up to the incident, the investigating officer's conclusions and recommendations, and the efforts made by commanders to minimize the recurrence of the accidental release of air-delivered ordnance on friendly military forces or noncombatants.

A review of the authenticated "short rounds" in CHECO reports of previous years revealed that these incidents basically followed a general pattern of primary and contributing causes: pilot error, poor weather conditions, troop location unknown, weapon system malfunction, wrong target hit due to ground personnel error, poor communications, change in the ground situation, and inaccurate target marking. However, it was also noted that in a troops-in-contact situation the chance of a

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short round must be weighed against the possibility of heavy losses if  
2/  
close air support is not provided.

Secretary of the Air Force Seamans, in an interview by CBS Pentagon correspondent Bob Schieffer on 26 November 1971, was asked to comment on "charges from several quarters of indiscriminate bombing, especially in the northern part of Laos, creating a lot of refugees..." His reply:  
3/

*Well, I would say, first of all, that there obviously are a large number of refugees and it is a matter of deep concern to the Air Force that this has taken place. But this is not by reason of negligence on our part. We have followed some very exacting rules in carrying out the roles that I have described, that the rules of engagement are extremely important in our operation there in order to minimize casualties, in order to minimize the potential impact of the bombing on national monuments and things of this sort.*

*And these rules of engagement are first taught to our pilots in this country before they go over there; they are reviewed on a 90-day basis. And even before each mission the commander of a group will go over the rules to be sure there is no misunderstanding. And on top of that, we do not deliver any ordnance in close support without forward air controllers on the spot who clear the particular sortie....*

*I am satisfied that these rules have been as complete and comprehensive as ever been carried out before and it is with the objective of not causing casualties to the maximum extent possible.*

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INCIDENTS

Concerned about the rash of short round incidents in early 1971--nine in February, March, and April, the Commander of Seventh Air Force (7AF), General Lucius D. Clay said in a personal message in early May 4/ to his operational commanders:

1. I am concerned with the number of short round incidents which have occurred in recent months. This unfavorable trend of mishaps must be reversed.
2. Missions in close support of friendly elements require a high degree of proficiency from all crew members. All strike and FAC (forward air controller) aircrews should be rebriefed on the importance of positive identification of friendly positions and delivery weather restrictions for troops-in-contact situations.
3. Due to the proficiency level required for close air support operations, personnel flying to maintain currency and not directly assigned to a tactical unit will not be utilized on missions that are likely to be called upon to provide close air support.
4. It is the responsibility of every crew member to adhere to established procedures and flying techniques to insure safe and successful accomplishment of the mission. Commanders and supervisors at all levels must continually stress those factors which can prevent this type of mishap.

No short rounds were recorded in January; however, this record was soon marred when four incidents occurred during the month of February.

6 February 1971

The first short round of CY 71 occurred when two Rockeye II anti-tank cluster bombs were accidentally expended on friendly positions in the Republic of Vietnam (RVN) 17 nautical miles (NM) due south of the

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Vietnam Demilitarized Zone (DMZ). Seven Army of the Republic of Vietnam (ARVN) soldiers were killed and 55 wounded.<sup>5/</sup>

This short round incident occurred at approximately 1920H in deep twilight conditions in weather 500 feet broken to overcast, with visibility one to two miles, and haze. Electron 512, a U.S. Navy A-6C aircraft from Squadron 145 based aboard the aircraft carrier USS Ranger in the Tonkin Gulf, was cleared by proper authority for an armed reconnaissance mission in a sector of Laos to the west and south of the DMZ. The pilot rejected one possible target which was positively fixed by radar in South Vietnam. Shortly thereafter the bombardier/navigator (B/N) picked up another moving target. After checking the A-6 radar/computer system's target geographical coordinates (known as "on-call" coordinates), the B/N decided the target was in his assigned sector in Laos. Within 45 seconds of picking up the target on radar, the attack was made.<sup>6/</sup>

On the ground, the RVN near the border was a bivouac area of ARVN troops accompanied by U.S. Army advisors. The advisors reported hearing a jet aircraft overhead, followed by two or three "pops" just prior to being struck by a cluster munition.<sup>7/</sup>

Investigation revealed that the distance between the intended and actual points of contact was slightly less than two NM. The B/N had updated the computer's "present position" about 20 minutes prior to bomb release based on a radar position which he identified as a prominent landmark in western Laos. It was possible that a two NM error was initially

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set into the weapon system through a navigational error, or the system could have malfunctioned by this distance. The U.S. Army advisors on the ground reported that in the ARVN camp, which straddled Highway 9 in the RVN, light armored personnel carriers were moving about slowly. (The A-6C aircraft's radar mode of operation was specifically designed to identify targets moving at speeds in excess of four miles per hour.) There were several such camps along the highway in close proximity and traffic on the highway associated with one of the other camps was possible though not noted by the U.S. Army on-scene advisors. The B/N could have selected another camp's faster moving vehicle as his target. The radar presentations for the actual and intended target drop points were almost identical, and since their locations were less than two NM apart, an error in radar identification of the aircraft's actual position was quite possible.

In the final analysis, the investigating officer concluded that aircrew disorientation, target misidentification, and/or equipment malfunction may have contributed to this short round incident.

14 February 1971

Under heavy enemy attack for several hours and still receiving incoming rounds of B-40, 40mm and 107mm rockets, the problems of Lima Site 20A Headquarters at Long Tieng, in northern Laos were compounded between 0610-0615H: two CBU-24 bombs released by a USAF F-4D aircraft landed approximately 800 meters short of the target. Damage resulting from this short round could not be positively separated from that of the attack, but

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it most probably contributed to one foreign national killed and seven wounded.

Impact of these errant bombs occurred directly within the Lima Site 20A Headquarters Compound. Major James E. McSharrow, Assistant Army Attache, described the incident:

*Suddenly without warning there were multiple explosions all around the bunker area--on top of it--everywhere. Someone yelled, "CBU--get back to the bunkers," and for the next 30 minutes CBU bombs exploded throughout our position. I saw one Meo soldier killed about 50 yards away by the CBU.*

On a scheduled night escort mission for an AC-130 gunship, Killer 01 and another F-4D aircraft from the 8 Tactical Fighter Wing (TFW), Ubon RTAFB, Thailand, were diverted to the enemy attack at Lima Site 20A. Killer 01 had been flying approximately four hours and 45 minutes prior to the incident. Weather was reported at 0440H to be 7,000 feet overcast, four miles visibility in haze: at 0645H overcast with cloud bases 6,000 to 8,000 feet, tops unknown and poor visibility.

The airstrike was controlled by a FAC from a ground position within the Headquarters Compound. From excerpts of the conversation between the FAC and the Killer flight, it was determined that the FAC was fully aware of Killer 01's type ordnance prior to release. The Air Munitions Guide for USAF Air Liaison Officers and Forward Air Controllers clearly stated: "CBU 24/49 munitions are not intended for use near friendly forces." It also listed the minimum safe distances which must be observed.

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Due to lack of ground-to-air UHF communications, the FAC used an URC-64 survival radio. Radio contact between the fighters and the FAC was extremely poor; an ABCCC (Airborne Battlefield Command and Control Center) had to relay several transmissions. The target, located in an area of high ground approximately 800 meters southwest of the compound, was marked by tracers from .50 caliber machine gun fire. The FAC did not advise a run-in heading since he felt any heading would have taken the fighters over friendlies.

The ordnance expended by Killer 01 landed approximately 800 meters short. Both the aircraft commander and his weapon systems officer felt that their dive angle at release was somewhat shallow, but exactly how much is not known. Both agreed that the rest of the bombing parameters were met.

15/  
The investigating officer surmised that since the aircrew reported Killer 01's dive angle more than 35 degrees and yet short of the pilot's planned 45 degrees, an estimate of 40 degrees at release appeared to be a reasonable assumption. With these conditions, the pilot could not have been aiming at the correct target and had an impact error of 800 meters, because the first bomblet would have landed only 230 meters short of the target. It was almost certain that the pilot was partially confused on two accounts. In one statement he cited a run-in heading from north to south; in another, northeast to southwest. He also observed the tracers to appear to be firing from north to south when in reality they were fired to the southwest. A third and most vital point of confusion

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may have been the intended target itself. 17/

The overall situation as it existed at the time of the incident--dawn, poor visibility in haze, the tracer stream marking the target along with other ground fire from friendly and enemy positions, several fires burning, poor communications, fatigue from the long hours of night already flown, and lack of a complete target briefing--all gave support to the possibility that the wrong target was selected by the pilot 18/ of Killer 01.

These recommendations were provided by the investigating officer: 19/

1. That all FACs and strike aircrews be thoroughly indoctrinated on the contents of 7AFRP 136-2, the Air Munitions Guide for USAF Air Liaison Officers and Forward Air Controllers, and similar documents on a recurring basis.
2. That all aircrews be briefed on this incident, placing emphasis on the disastrous results which can and will occur if strike aircrews and/or FACs fail to exercise sound judgment and adhere to applicable directives.
3. That 7AF establish a firm directive to strike crews which states that pilots will not attack targets in close proximity to friendlies unless the FAC or FAG (forward air guide) gives specific run-in headings, specifies the type ordnance desired, and issues positive breakaway instructions to remain clear of friendly positions.

14 February 1971

A Vietnamese boy was killed at approximately 1315H when ordnance of unknown origin impacted and exploded in a nontarget area in the coastal area of northern RVN, some 15NM south of Da Nang. 20/

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No scheduled or cleared ordnance delivery by either aircraft or artillery was being conducted in this area, except for a flight of two U.S. Navy A-4 aircraft from Attack Squadron 164, based on the Aircraft Carrier Hancock.

The lead aircraft, Magic Stone 415 and another A-4 were conducting a preplanned close air support mission on a cleared target some 5,000 meters from the reported incident. Cloud coverage in the local area was scattered to broken at 4,000-5,000 feet, with good visibility.

The inadvertent release was not suspected until after the planned air strike was completed and only four of the lead aircraft's six MK-82 bombs were accounted for.

The flight was controlled by a ground FAC, Report Card 14, who described a sequence of events which indicated that an accidental drop on the lead aircraft's first "hot" pass could have occurred at the strayed ordnance impact position. The A-4's assigned heading on this pass was 240 degrees; however, its adjusted heading was 255 degrees, which gave a flight path over the reported impact point at the approximate time the pilot should have armed the bomb switches. The ground FAC observed this pass as "normal" for a release on the cleared target; no bombs were observed dropped in the local area. Later, he observed smoke from the approximate roll-in position which correlated with the reported impact position of this short round.

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Based on the information available, it was concluded that the inadvertent release of ordnance was by Magic Stone 415. Cause of release was unknown. The proposed target was properly cleared, marked, and controlled. The investigating officer recommended no changes to current procedures or practices.

28 February 1971

Because the commander of an ARVN ground unit located in the vicinity of the target did not make his position known to the FAC, another short round incident was recorded. Cobra 04, a USAF F-4D aircraft from the 12 Tactical Fighter Wing (TFW) at Phu Cat AB, RVN, dropped three 500 pound MK-82 Snakeye Retarded General Purpose (GP) bombs short of the intended target; however, no alarm was expressed since the established position of the friendlies was well clear of the impact point. Later it was reported that ARVN troops located east of the target had sustained one killed and two wounded during the airstrike.

Cobra flight had been scrambled from ground alert to provide close air support for a troops-in-contact situation. Their target was a company of North Vietnamese Army (NVA) bunkered at UTM (Universal Transverse Mercator) coordinates XD631265 in Laos near the RVN border approximately 22NM south of the Vietnam DMZ. Nearest friendlies were reported to be at XD630270 with another friendly unit 1,200 meters to the northwest of the target. The weather in the target area was clear with reduced visibility due to haze. Visibility to the west was five miles, and two miles to the east.

[REDACTED]

Cobra flight was thoroughly briefed by the airborne FAC, Hammer 224, on the target description and position of ARVN troops. Since these friendlies were north of the target the FAC specifically directed attacks be made from east to west or west to east. Questioned by the fighters about the close proximity of the friendlies to the target, the FAC acknowledged and stated that the ARVN ground commander had accepted responsibility for any mishap resulting from ordnance delivery closer than safe separation distance. (The FAC's airborne observer was a South Vietnamese who, as the interpreter, had constant radio contact with the ground commander.) After the FAC and strike pilots very carefully established the precise position of the target and friendlies, the lead fighter, Cobra 03, attacked first, hitting the target with two fire bombs (napalm). Both F-4s made several passes from east to west and west to east dropping ordnance with <sup>28/</sup> excellent results.

Just prior to termination of this air attack, a target which was even farther south than the other releases was marked by the FAC with a white phosphorous smoke rocket. Lead strafed this marked target, followed by Cobra 04 who delivered his last three 500-pound high drag bombs. Shortly thereafter the FAC's Vietnamese airborne observer indicated that a short round may have occurred. Later it was reported that friendly troops east <sup>29</sup> of the target had indeed sustained one killed and two wounded.

It was concluded that the incident was caused by the failure of the ground commander to report all friendly positions in the vicinity of the

target. The investigating officer observed that the range error encountered by Cobra 04 on his last pass, while undesirable, did not cause the short round. His rationale was that attack headings are specifically selected so that an error in range, either long or short, will cause the bombs to impact a greater distance away from the friendlies than the distance from the target to the friendlies.

The investigating officer recommended that advisory personnel reemphasize the urgent requirement to report the exact location of all friendly units in the target area.

The month of March recorded a total of three short rounds. After the third incident, Gen. Lucius D. Clay, Commander of 7AF, sent all of his operational units this message in mid-April:

1. (C) As stated in 7AF Secret DOP message DTG: 15/1220Z March 71 this HQS is deeply concerned over short round incidents and resulting friendly casualties. Additional short rounds make it imperative that all commanders insure that aircrews are intimately familiar with and fully comply with the procedures established by 7AFR 55-49. This regulation, unit doctrines, and tactical operations manuals should provide sufficient guidance to preclude short round incidents.

2. (S) Recent incidents have been caused by:

A. Poor or no communications between the ground commander and FAC.

B. Inadequate briefing by the FAC on friendly positions and indefinite run-in headings.

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C. Unknown friendlies in target area and inadequate marking of friendly positions. All of these could have possibly been prevented if each FAC and strike pilot had followed 7AFR 55-49 which directs that "pilots will discontinue the mission if any uncertainty and confusion exists."

5 March 1971

Many inconsistencies in the statements of the various personnel involved made it almost impossible to determine exactly what happened when at approximately 1330H, 38 members of the 2d ARVN Regiment, 1st ARVN Division suffered burn injuries from CBU-12 white phosphorous smoke. <sup>33/</sup>

Gunfighters 26 and 27, two USAF F-4E aircraft from the 366 TFW at Da Nang AB, RVN, were scheduled to support a landing zone (LZ) assault in Laos, some 21NM southwest of the Vietnam DMZ. Weather was marginal. A cloud layer at 4,000 feet was scattered; another at 6,500 feet was solid to occasionally broken. Visibility below the clouds varied by one to <sup>34/</sup> three miles.

The LZ insertion was in progress when the fighters arrived on scene. According to the air mission commander (AMC), the airborne FAC, Hammer 48, was briefed to deliver smoke southeast of the LZ along a northeast/southwest axis; instead, it was delivered along a northwest/southeast axis some <sup>35/</sup> 50 meters from the LZ.

The FAC initially briefed Gunfighter flight to start laying smoke on his first rocket mark and terminate on the second. Lead was directed to

make his pass along the north/south axis. Both fighters were cleared "hot" even though the FAC did not have them visual. Lead recognized the marks as 300 meters apart on an approximate northwest/southeast axis; however, without questioning the FAC he released smoke on a 360 degree heading starting on the first mark. The smoke to the FAC appeared to be laid on an east/west line. In an attempt to correct the situation, he then directed the second fighter, Gunfighter 27, to make a perfect letter "L" by starting on a north heading at the eastern end of lead's smoke line. This confused Gunfighter 27; the previous smoke line appeared oriented north to south. He twice asked confirmation of a run-in heading to the north, and received "affirmative" answers each time. Without further question Gunfighter 27 laid his smoke parallel to lead's on a 360 degree heading. At this time, the ARVN regimental commander informed the AMC that the smoke had inflicted casualties in his troops. 36/

Even though inconsistencies in the statements made it almost impossible to determine exactly what happened, several conclusions were obvious to the 7AF Director of Command and Control: 37/

1. *The AMC did not brief the FAC on the presence of friendly troops in the area.*
2. *The FAC used general headings of a cardinal nature instead of specifics.*
3. *The FAC did not assure that the strike pilots understood that their smoke was to start at one mark and stop over the next.*

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4. The FAC cleared the fighters in "hot" although he did not have them in sight.
5. Gunfighter 26 did not question the FAC's directions to use a north heading when the smoke marks appeared to him to be on a 300/120 degree axis.
6. Gunfighter 27 did not question the requested "L" which could not be made using the directed south to north heading.
7. Both the AMC and the FAC failed to terminate the delivery after the first pass indicated clarifying instructions were required.

Recommendations by the investigating officer were implemented by this  
38/  
message from 7AF to all operational units:

Subject: Short Round (U)

(C) Recent short round incident involving 38 casualties prompts the following guidance:

- A. All FAC and strike pilots will use specific compass headings (plus or minus 10 degrees); not general directions in prestrike briefing; i.e., use "345 degrees" instead of north.
- B. FACs will visually acquire strike aircraft prior to clearing them for attack.
- C. FACs supporting ground forces will request and receive a tactical situation briefing by the Air Mission Commander before clearing strike aircraft to expend.
- D. Strike aircraft will expend only when FAC instructions are clear and fully understood.
- E. All aircrews will be rebriefed on authority and responsibility to terminate attack whenever situation warrants.

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13 March 1971

39/

In his report the investigating officer observed:

*Although the target briefing and the target markings provided by the FAC to the two fighters were mutually agreed upon by all three involved as being good and identifiable, still, a short round occurred.*

Three ARVN soldiers received minor burns when, at approximately 1615H, Gunfighter 46 and another USAF F-4E aircraft from the 366 TFW, Da Nang AB, RVN, dropped four BLU-27 fire bombs in close proximity to troops of the 1st ARVN Division at an outpost in Laos, approximately 20NM south south-west of the Vietnam DMZ. 40/

Gunfighter flight was targeted in support of troops-in-contact against a known enemy location consisting of .51 caliber machine gun emplacements. Broken to overcast cloud coverage was based at approximately 3,000 feet with tops at 8,000 feet. The flight was briefed in the standard manner by the airborne FAC, Hammer 223, and directed to use a restricted run-in heading of 045 degrees, due to the proximity of friendly troops. Located approximately 400 meters at nine o'clock to the run-in heading, these friendlies were to be dispensing yellow smoke to mark their position. 41/

The FAC marked the target with smoke rockets twice and each time the ARVN ground commander acknowledged these marks as correct. Both the FAC and fighter pilots thought they had the target clearly defined, and Gunfighter 46 was cleared to release ordnance first. The ARVN ground commander

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advised that three of his personnel had been burned. 42/

From the statement of the FAC who worked this strike: 43/

*At about two seconds prior to pickle, I observed Gunfighter 46 roll out on what appeared to be a good run-in heading. I cleared Gunfighter 46 "hot." At this time I observed the fighter roll into a left bank and changed his heading 10-15 degrees toward friendlies. I was unable to have him go through "dry" prior to release of the four BLU-27s.*

These statements, in part, are from a deposition made by the pilot 44/ who dropped the errant bombs:

*Because of the reported guns, a jinking final was flown, overshooting right, left and back to the 045 degree heading for release. Wind had been briefed by weather at 090 degrees/15 KTS at 5,000 feet. The FAC said they appeared to be strong from the north. Observed that the impact point, during high orbit over target (after the incident), was beyond the remaining marking smoke. However, this appeared normal with the reported winds causing the mark to drift.*

The facts available made it impossible to determine the actual cause of the incident. The lack of a ground commander's report further confused the issue. (The ARVN ground commander declined to comment on the strike indicating that casualties were minor and that he was quite willing to accept the minor casualties incurred in order to benefit from the tactical air support received thus far.) It was probable that the yellow smoke being dispensed by the ARVN troops had dissipated by the time the strike aircraft turned final for their first bomb run, thus confusing the situation.

Also, the time period during which the airborne FAC could realize the error being made by the lead pilot on his inbound track could not have exceeded two seconds, thus precluding the FAC from altering the course of events. <sup>45/</sup>

The investigating officer recommended that in future similar situations, the ground commander and FAC insure that continuous colored smoke, or other means of readily identifying friendly positions, be provided throughout the <sup>46/</sup> strike.

14 March 1971

At approximately 0845H Ring Neck 203-2, from a flight of two U.S. Marine A-4E aircraft, dropped two MK-82 500-pound high drag bombs on friendly troops of the 63d Company, 1st ARVN Airborne Division, some 15NM south of the DMZ just inside the border of RVN. This incident killed nine ARVN soldiers <sup>47/</sup> and wounded 16.

At the time of this incident, weather in the area was a problem; it varied from broken cloud conditions to complete obstruction. Light rain showers were falling. Prior to commencing target coordination with the ground personnel, the airborne FAC, Hammer 09, had difficulty communicating with his backseat Vietnamese observer. The observer said he was tired and expressed a desire to go home. Strike coordination from ground to air was completed in an indirect manner: ARVN ground commander to interpreter <sup>48/</sup> to a U.S. Army helicopter to the FAC.

In a standard briefing the FAC gave the strike pilots a restricted run-in heading of south to north with break to the west after ordnance release. Because of weather conditions, the FAC lost visual contact with the strike aircraft during their second target pass. On this run, just before ordnance release, Ring Neck 203-2 was hit by ground fire which impacted directly beneath his seat. His ordnance landed among friendlies killing nine ARVN soldiers and wounding 16. <sup>49/</sup>

There were few areas of agreement among the concerned parties. The FAC stated that he did not clear Ring Neck 203-2 to drop; however, he also did not tell him to hold "high" until after the short round incident occurred. The pilot, in his statement, assumed that a correction transmitted by the FAC after lead's second release was his clearance to release on target. In contrast, the FAC stated that he had entered weather after clearing lead on final and did not break out of the clouds until <sup>50/</sup> after the short round was dropped.

In conclusion, the investigating officer remarked: <sup>51/</sup>

*Although the facts available make it impossible to clearly define and pinpoint the actual cause of the incident, these contributing factors are cited, any one of which could be sufficient to cause a short round incident:*

1. Weather in the target area was marginal.
2. Communications with the ground commander were inadequate.

3. The FAC entered instrument flying conditions during the strike and could not control the last two passes made by the strike aircraft.

4. The strike aircraft pilot failed to understand that corrections from previous bomb hits do not constitute clearance to deliver ordnance on the target.

5. The strike aircraft received a hit late in the bomb run causing an inaccurate drop. This is the most probable cause of the incident.

In the month of April two separate incidents were recorded which killed 16 friendly troops and wounded 33 more.

### 3 April 1971

The intended target was an enemy bunker complex located on a hill which was similar in physical appearance, but two kilometers to the east of the actual impact area.<sup>52/</sup> Thus begins the story of another short round incident.

Rancho 02, a USAF F-4E aircraft from the 388 TFW, Korat RTAFB, Thailand, was charged with dropping three MK-82 bombs on a friendly position in the vicinity of Ban Na, in northern Laos. Reports listed 16 friendly troops killed and 31 wounded.<sup>53/</sup>

Due to haze and smoke, the ground visibility at the time of this incident was poor, at best two to three miles. Numerous ground fires in the vicinity further reduced visibility.<sup>54/</sup>

A flight of two F-4Es, Rancho 01 and 02, rendezvoused with and were briefed by the airborne FAC, Raven 29. The target was an enemy bunker complex with friendly positions located one kilometer to the west. Because of poor visibility, Rancho flight had difficulty locating the target. Original run-in heading was planned north to south; however, because of drifting smoke obscuring the flight path, the FAC changed headings from south to north. Rancho 01 dropped three MK-82s within 10 meters of the desired point of impact. The fighters made several additional passes at the target, but did not drop ordnance due to poor parameters, lack <sup>55/</sup> of positive target identification, and clouds obscuring the target.

Asked by Rancho 02 to re-mark the target, the FAC's mark was off and long. Not seeing this mark, Rancho 02 asked the FAC if the target was the hill with a large bald spot. Raven 29 confirmed this and cleared Rancho 02 to strike. Lead saw the ordnance impact in an area west of the target near the friendly position; the FAC did not see the bombs impact. Another FAC, Raven 21, who was passing through the area, heard an explosion near a known friendly position and noticed an F-4 aircraft pulling <sup>56/</sup> out from a bombing run near this position.

Interrogation revealed that Rancho flight was not aware of a 7AF message, subject: Weather Criteria, which listed guidelines for weather minimums of 4,000 feet AGL (Above Ground Level) and three miles visibility for strike missions in a low threat area. However, this same message stated that during a vital troops-in-contact situation, the flight might

have to decide on a trade off between delivery accuracy and margin of safety.

The investigating officer concluded that prior to committing an air strike the pilot of Rancho 02 failed to positively identify an enemy position. This was due to a misinterpretation between the FAC and the fighter pilot as to exactly which area was referenced by each as the target.

27 April 1971

Confusion as a result of two firing areas designated as "Bravo Box" in two separate geographical locations was blamed for this short round incident. At 0720H two soldiers of the 30th Republic of Korea (ROK) Regiment were wounded when a USAF AC-119G aircraft, Shadow 72, expended 3,000 rounds of 7.62mm ammunition into a position of friendly troops in the coastal area of central RVN 18NM north of Phan Rang. This gunship was on a South Vietnamese Air Force (VNAF) training mission with a USAF instructor crew from the 14 Special Operations Wing (SOW), Phan Rang AB, RVN.

Operating in a 14 SOW training area known as "Bravo Box," Shadow 72 had obtained clearance to the live firing area from all required resources. The final clearing authority, II DASC, (Direct Air Support Center) at Pleiku AB, RVN, authorized this gunship to work in "Bravo Box" from 0530-0630H. This was later extended until 0745H. Prior to this short round incident, Shadow 72 noticed movement and flares on the

ground. After numerous radio calls through II DASC (who was coordinating with the 9th ROK Division) the Koreans determined that no friendlies were located in "Bravo Box." Subsequently, II DASC granted the gunship permission to start firing. After a 3,000 round burst of 7.62mm ammunition, numerous flares and yellow smoke were immediately released from the impact area. Shadow 72 ceased firing, and later learned that it had wounded two soldiers from the 10th Company, 3d Battalion, 30th ROK regiment. <sup>61/</sup>

Unknown to the 9th ROK Division, the 14 SOW or II DASC, both the ROK Division and the 14 SOW had established special firing zones in Ninh Thuan and neighboring Khanh Hoa province with Alpha, Bravo, and Charlie designators. The 14 SOW first established the live firing areas in February 1971. These firing zones were in the 9th ROK Division's operating area and were coordinated with the 3d Battalion, of the 30th ROK Regiment, 9th ROK Division. It was assumed that this information would be passed through the proper channels to the ROK Division Headquarters; however, it stopped at the regimental level. The 14 SOW's procedures to be followed in obtaining clearance into these "boxes" were technically consistent with 7AFR 55-59, Rules of Engagement for In-Country RVN, which directed that all targets must be approved by the Province Chief. Shadow 72 had obtained this clearance as well as the assurance from the 9th ROK Division that "Bravo Box" area was clear. <sup>62/</sup>

Confusion of "box" designators caused by incomplete coordination of the 14 SOW special training areas by the ROK above the regimental level was the cause of this short round incident.

As a result of this short round incident, the 14 SOW established new procedures to insure training areas were clear. They recoordinated all training areas with the applicable ground commanders and the parent units. Each day the 14 SOW cleared the training areas to be used that night with every unit in the area. Prior to firing, final clearance was to be initiated, while airborne, through II DASC.

4 July 1971

The month of June did not register a short round; however, July managed to record an international incident which prompted the Commander, 7AF, to send a personal message to all commanders under his operational control:

*Personal from Gen Clay to Commanders. Subject:  
Short Round Incident (U).*

(S) A recent short round incident in which a gunship fired on a friendly target was a result of confusion concerning the strike clearance. The target was located near an international border where rules of engagement in one country are radically different from those in the neighboring country. The actual target location was not precisely determined and the wrong clearance was passed to the gunship. It is imperative that all aircrews and controlling personnel know exact target locations and applicable rules of engagement. Extreme caution must be used in the vicinity of any borders and ordnance will not be expended if any doubt exists concerning target location, proper validation, or clearance to strike.

In response, the Deputy Commander, 7/13AF, in a mid-July letter to  
the Commander, 7AF stated, in part:<sup>66/</sup>

*Briefed the Laos country Team this morning on the results of our preliminary investigation into the 4 July short round incident. I explained that we view incidents of this nature inexcusable and unacceptable, and assured them that we would move forcefully to prevent a recurrence.*

At approximately 1100H a USAF AC-130 gunship had expended 1,200 rounds of 20mm and 292 rounds of 40mm ammunition at friendly boats in Laos on the Mekong river, about five nautical miles northwest of where the Mekong enters Cambodia. The Laotian FAG located on the ground in the area reported eight civilian friendlies killed and nine wounded. Military Region IV, RVN officials stated the casualties as nine killed and six wounded. The exact number of casualties is unknown.<sup>67/</sup>

The gunship, Spectre 06, was on an armed reconnaissance mission in the Steel Tiger portion of Laos. (The AC-130 gunship was a self-forward air controlled mission.) At 0915H 10 motorized boats were observed in Laos on the Mekong river, approximately five nautical miles northwest of where the Mekong enters Cambodia. These targets were visually acquired after initially being detected by ignition detection equipment. Weather in this target area was clear to scattered clouds, visibility unlimited.<sup>68/</sup>

Spectre 06 requested strike clearance from Hillsboro, the ABCCC in southern Laos, and included the target's geographical coordinates (in Laos).<sup>69/</sup>

The ABCCC requested and received the gunship's distance measuring equipment (DME) range and bearing from Ubon TACAN; this reading placed the aircraft in Cambodia. One minute later Spectre 06 corrected the reading to correspond with the target position in Laos. However, the ABCCC relayed the target coordinates (in Laos) and the gunship's position (DME reading in Cambodia) to the 7AF TACC. The 7AF TACC then advised that the target locations passed were in conflict and requested confirmation that the target was in Cambodia. The ABCCC's answer was that the target was south of his area (Cambodia). The 7AF TACC then cleared Spectre 06 to strike the target, provided it was south of Hillsboro's area. At 1118H Hillsboro cleared Spectre 06 to strike, without qualifying that the target must be in Cambodia. The gunship struck two boats in Laos approximately five nautical miles northwest of the Laos/Cambodia border. Later these craft were discovered to be friendly civilian boats. <sup>70/</sup>

The rules of engagement (ROE) for the Mekong river were composed of two elements. North of the Cambodia-Laos border, in Laos, armed reconnaissance of the river lines of communication (LOCs) was not authorized and no target could be attacked along the river without validation by either the Vientiane Air Attache, Laotian FAG or a Laotian army officer who flew with USAF FACs in Laos. However, south of the border in Cambodia, the river was designated a Category "B" LOC which allowed armed reconnaissance of the river. Armed reconnaissance aircraft were authorized to attack targets of opportunity, consisting of motorized boats during the

[REDACTED]

day and all watercraft at night. The investigating officer observed that these diametrically opposed ROE on the Mekong, particularly in the area where the river enters Cambodia from Laos, possibly introduced confusion into the minds of control and/or crews as to which targets could be struck. 71/

In his report, the investigating officer concluded: 72/

*This short round incident was caused by the ABCCC (Hillsboro) assuming, through a series of errors, that Spectre 06 was attempting to strike a target in Cambodia area and then clearing Spectre 06 to strike a target actually within Laos which was not properly validated for strike in accordance with existing rules of engagement.*

Seventh Air Force sent this message on 16 July 1971 to all applicable organizations: 73/

Subject: Recertification of Rules of Engagement. (U)  
(S) A short round incident involving an AC-130 gunship occurred on 4 July 1971. The investigation revealed that there was unfamiliarity by aircrews and command and control personnel with rules of engagement, target validation procedures and precautions required when operating near international borders. Consequently all gunship crews, command and control and battle staff personnel will complete a review of and reexamination of the ROE during the month of July. The review will stress operations near international borders and target validation procedures.

August and September were free of short rounds; October managed to record two more incidents.

16 October 1971

The responsibility for a possible short round was acknowledged and accepted by the U.S. Army ground advisors and their ARVN counterparts, whose actions had been dictated by an emergency situation.

A USAF A-37B aircraft expended two BLU-32 Fire bombs at 1210H in the close vicinity of 14th Company, 1st ARVN Airborne Division which was located 23NM north northwest of Tay Ninh city in southern RVN. One ARVN soldier was killed and seven were wounded when one of these napalm canisters impacted some 25-30 meters from a friendly position. <sup>74/</sup>

Background for this air strike is best provided by these statements, <sup>75/</sup> in part, from a document signed by the FAC, Sun Dog 15:

At approximately 1025H we relieved Sun Dog 08 at Rampage Yankee's (U.S. Army ground advisor) position. We were passed the grids (UTM coordinates) XT 074850 as friendly, and XT 074848 as the enemy position. At about 1030H Rampage Yankee marked his position with purple smoke for identification. He then requested napalm within 60 meters of a friendly position. I told him we could not put it within 60 meters - it was too close since the minimum safe distance was 109 meters. He said that he had to have napalm there in order to break out of his position - in contact with the Viet Cong (VC). The VC were close enough to be throwing grenades and firing small arms. He then said they were pinned down and could not move. I asked Rampage Yankee, with his initials, if he would accept responsibility for any short rounds if the ordnance was expended. He said "yes," and gave me his initials as FEW. Rampage Charlie (the ARVN ground commander), initials DJM, agreed with Yankee so the ordnance was ordered. He wanted A-37's with napalm.

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Hawk 05 and Hawk 06, from the 8th Special Operations Squadron (SOS) at Bien Hoa AB, RVN, were the A-37B aircraft scheduled for an immediate airstrike of this VC position. Weather in the target area was clear <sup>76/</sup> with unrestricted visibility.

Upon Hawk flight's arrival, the airborne FAC briefed the strike crews of the badly needed ordnance, that the friendlies were only 60 meters from the target, and that the ground commander would take full responsibility for the strike. Run-in headings were from west to east parallel to the friendlies' position. After each pass, based on the ground commander's urgent requests, the FAC clearly marked the requested target area with white phosphorous rockets. Each request was for ordnance to be dropped closer and closer to the friendlies. Throughout the air strike, the ARVN had repeatedly marked with purple smoke what they had reported as their southernmost position. On the first four passes Hawk 05 expended one pod of 2.75 high explosive rockets and two BLU-32 Fire bombs. On a subsequent pass he dropped two fire bombs in close <sup>77/</sup> proximity of the ARVN. Eight friendly soldiers were burned.

In a staff summary the 7AF DCS/Operations Director of Command and Control commented:

*The investigation reveals no negligence on the part of the FAC or the pilot. All prestrike clearance procedures were satisfied by the FAC and the pilot. This strike was conducted within the rules of engagement and existing operating authorities in that the*

[REDACTED]

responsibility for a possible short round was acknowledged and accepted by the U.S. Army advisor and their ARVN counterparts.

18 October 1971

In a formal investigation of a short round incident wherein two MK-82 bombs were dropped on a friendly position killing 18 ARVN and wounding <sup>79/</sup> seven, the investigator concluded:

*Primary cause was pilot factor, in that Rash 05 (Airborne FAC) failed to understand and react to the target grid change passed by Pagoda Delta (U.S. Army Ground Advisor to the 6th ARVN Battalion).*

After having visually reconnoitered (VR) another target area and ordered aircraft armed with 500-pound MK-82 bombs and napalm, the airborne FAC responded to a request by Pagoda Delta. This request was to VR and determine friendly positions in relation to a suspected enemy location in southern RVN some 23NM northwest of Tay Ninh City. <sup>80/</sup>

Within 30 minutes, Hawk 01, and another USAF A-37 fighter aircraft arrived from the 8 SOS, Bien Hoa AB, RVN. Cloud coverage was 3,000 feet scattered and 10,000 feet broken, with visibility at seven miles. Hawk flight rendezvoused with Rash 05 and expended half of its ordnance on another target. The FAC and fighters then proceeded to Pagoda Delta's <sup>81/</sup> area.

Confusion occurred at the onset between the FAC and the U.S. Army advisor in determining the correct target coordinates. Originally agreed to be at XT033850, the advisor later attempted to obtain the FAC's acknowledgement of a correction to XT033860, and accepted his response of "a solid copy" as understanding the correction. The FAC, in turn, testified that he heard the advisor repeat the coordinates, but heard it as XT033850 each time. The geographical features of the ARVN 63rd Company's position with their advisor in relation to the desired target were remarkably similar. Rash 05 observed a helicopter, purple smoke, and personnel in an area near the site he had identified as the 63rd Company's position. After checking with the ARVN company commander, the ground advisor confirmed this as his position. Rash 05 stated that he had no doubt in his mind as to the correct target. At a later time the advisor was told by the ARVN Commander that this information was incorrect--too late to be transmitted to the FAC.

The ground advisor discussed the incident with the FAC immediately after the incident, and stated in a signed testimony:

*The next thing I knew my (ARVN) counterpart said to call off the air strike. I said, "cease firing." "What grid did you (FAC) drop that bomb on?" He (FAC) said, 033852. I said, "negative, your target was 033860."*

The primary cause of this short round incident as determined by the investigating officer was pilot factor, in that the FAC failed to understand

and react to the target grid change passed by the U.S. Army ground advisor. Contributing causes were an incorrect friendly ground position that was erroneously confirmed by the ARVN company commander, and the U.S. Army ground advisor gave the final clearance without restating or confirming strike coordinates.

84/

This short round incident prompted a revised procedure for passing target grids. This procedure involved double confirmation of the requested grid between the FAC and the requestor, and a further confirmation between the FAC and the brigade tactical operations center (TOC).

85/

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SUMMATION

In comparison to CHECO Reports of previous years, there were no new causes of "short round" incidents during the period of this report. Again, the factors most often involved were poor visibility, tense environments, poor communications, and an intense desire to accomplish the assigned mission. "Troop location not known" was also a frequent cause in that ground commanders failed to advise the strike aircrews of friendlies' positions.

Ground commanders frequently refrained from reporting incidents involving short rounds, nor would they comment on reported incidents. A case in point is this observation made by the investigating officer of an incident which involved an ARVN combat unit:

*Marginal weather conditions greatly increase the possibility of a short round. However, in a troops-in-contact situation this must be weighed against the possibility of heavy losses if close air support is not provided. ARVN attitude towards tactical close air support is such that they are apparently willing to accept the occasional losses due to short rounds in order to receive the air support they need.*

Commanders at all levels continued to review each case in an attempt to learn from mistakes of others, and thus help prevent recurrences. In many cases, new operational procedures were instigated since clearer instructions and more precise procedural techniques could have possibly alleviated certain contributing factors encountered by the aircrews and ground combat personnel.

FOOTNOTES

1. (U) 7AFM 55-1, "Short Round Incidents," dated 15 December 1971, para. 18-4.
2. (S) Project CHECO Reports, Short Rounds, June 1968-May 1969; Short Rounds, June 1969-December 1970.
3. (U) Air Force Policy Letter for Commanders, Office of the Secretary of the Air Force, dated 1 Jan 72.
4. (S) Msg, 7AF to Operational Units under Operational Control of 7AF, 061110Z May 1971.
5. (C) Extract of Report, I DASC to 7AF/DOCT, Short Round Preliminary Investigation (Incident of 6 Feb 71), undated.
6. (S) Extract of Report, Carrier Division 9, Investigation to Inquire into the Circumstances Connected with the Accidental Expenditure of Ordnance Against Friendly Forces--which occurred on 6 Feb 71, dated 17 February 1971.
7. Ibid.
8. Ibid.
9. Ibid.
10. (S) Extract of Report, 7/13AF/D00 to 7AF/DOC, Short Round Preliminary Investigation, dated 4 March 1971.
11. Ibid.
12. Ibid.
13. Ibid.
14. Ibid.
15. (S) Extract of Report, 7/13AF (D00) to 7AF (DOC), "Short Round Preliminary Investigation," dated 4 March 71.
16. Ibid.
17. Ibid.

18. Ibid.
19. Ibid.
20. (C) Extract of Report, I DASC to 7AF (DOCT) "Short Round Preliminary Investigation" (Incident of 14 Feb 71), undated.
21. Ibid.
22. Ibid.
23. Ibid.
24. Ibid.
25. Ibid.
26. (C) Extract of Report, I DASC to 7AF (DOCT) "Short Round Preliminary Investigation," dated 8 March 71.
27. Ibid.
28. Ibid.
29. Ibid.
30. Ibid.
31. Ibid.
32. (S) Msg, 7AF (CC) to (Operational Units Under Operational Control of 7AF), 030800Z Apr 71.
33. (C) Extract of Report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 13 March 71.
34. Ibid.
35. Ibid.
36. Ibid.
37. (C) Extract of Staff Summary Sheet, 7AF (DOCC), "Short Round Investigation" (Incident of 5 Mar 71), undated.

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38. (C) Msg, 7AF to (Operational Units Under Operational Control of 7AF), 230715Z March 71.
  39. (C) Extract of Report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 19 Mar 71.
  40. Ibid.
  41. Ibid.
  42. Ibid.
  43. (C) Extract of Atch 1 (Statement of Aircraft Commander, Hammer 223) to report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 19 Mar 71.
  44. (C) Extract of Atch 2 (Statement of Aircraft Commander, Gunfighter 47) to report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 19 Mar 71.
  45. (C) Extract of Report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 19 Mar 71.
  46. Ibid.
  47. (C) Extract of Report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 20 Mar 71.
  48. Ibid.
  49. Ibid.
  50. Ibid.
  51. Ibid.
  52. (S) Extract of Report, 7/13AF (DOHP) to 7AF (DOC), "Short Round Preliminary Investigation" (Incident of 3 Apr 71), undated.
  53. Ibid.
  54. Ibid.
  55. Ibid.
  56. Ibid.

57. Ibid.
58. Ibid.
59. (C) Extract of Staff Summary Sheet, 7AF (DOCT), "Short Round, AC-119G, 27 April 1971," dated 11 May 1971.
60. (C) Extract of Report, II DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 29 April 1971.
61. Ibid.
62. Ibid.
63. (C) Extract of Staff Summary Sheet, 7AF (DOCT) "Short Round, AC-119G, 27 April 1971," dated 11 Mar 1971.
64. (C) Extract of Staff Summary Sheet, 7AF (DOCT) "AC-119 Live Fire Training," dated 31 May 1971.
65. (S) Msg, 7AF (CC) to Commanders, 260315Z July 71.
66. (S) Extract of Ltr, 7/13AF (CD) to General L. D. Clay, Jr., 7AF (CC), dated 12 July 71.
67. (S/NF) Extract of Report, 7/13AF (D00) to HQ 7/13AF (CD), 7AF (DOCC), "Short Round Preliminary Investigation," dated 8 July 1971.
68. Ibid.
69. Ibid.
70. Ibid.
71. Ibid.
72. Ibid.
73. (S) Msg, 7AF (D0) to (Designated Operational Units), Subj: Recertification of Rules of Engagement, dated 160120Z Jul 71.
74. (C) Extract of Staff Summary Sheet, 7AF (DOCC) "Short Round Preliminary Investigation," dated 22 Oct 71.
75. (C) Extract of Atch 1 (Statement by FAC, Sun Dog 15, undated) to Report, III DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 21 Oct 71.

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76. (C) Extract of Report, III DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 21 Oct 71.
77. Ibid.
78. (C) Extract of Staff Summary Sheet, 7AF (DOCC), "Short Round Preliminary Investigation," dated 22 Oct 71.
79. (C) Extract of Hq 7AF Report, "Aircraft Accident Not Involving Aircraft Damage (Short Round/Combat)," dated 18 Oct 71.
80. Ibid.
81. Ibid.
82. Ibid.
83. (C) Extract of Tab N (Statement of U.S. Army Ground Advisor to the 6th ARVN Battalion, undated) to Hq 7AF Report, "Aircraft Accident Not Involving Aircraft Damage (Short Round/Combat)," dated 18 Oct 71.
84. (C) Extract of Hq 7AF Report, "Aircraft Accident Not Involving Aircraft Damage (Short Round/Combat)," dated 18 Oct 71.
85. Ibid.
86. (C) Extract of Report, I DASC to 7AF (DOCT), "Short Round Preliminary Investigation," dated 20 Mar 71.

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## **GLOSSARY**

ABCCC	Airborne Battlefield Command and Control Center
AGL	Above Ground Level
AMC	Air Mission Commander
ARVN	Army of the Republic of Vietnam
B/N	Bombardier/Navigator
DASC	Direct Air Support Center
DME	Distance Measuring Equipment
DMZ	Demilitarized Zone
FAC	Forward Air Controller
FAG	Forward Air Guide
GP	General Purpose
LOC	Line(s) of Communication
LZ	Landing Zone
NM	Nautical Mile(s)
NVA	North Vietnamese Army
ROE	Rules of Engagement
ROK	Republic of Korea
RVN	Republic of Vietnam
SOS	Special Operations Squadron
SOW	Special Operations Wing
TACC	Tactical Air Control Center
TFW	Tactical Fighter Wing
UHF	Ultra High Frequency
UTM	Universal Transverse Mercator
VC	Viet Cong; Vietnamese Communists
VNAF	Republic of Vietnam Air Force

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